

-10 to +50°C; and

wherein said copolymer P consists of the following units in polymerized form

- DI
C1
C2
- a) 20 to 80 % by weight of at least one monomer M2a, whose homopolymer has a glass transition temperature of $>30^{\circ}\text{C}$;
 - b) 20 to 79.7 % by weight of at least one monomer M2b, whose homopolymer has a glass transition temperature of $<20^{\circ}\text{C}$;
 - c) 0.5 to 1.5 % by weight of c1) a first acidic monomer M1 selected from the group consisting of itaconic acid, a salt of itaconic acid, an anhydride of itaconic acid, and mixtures thereof, or c2) mixtures of said first acidic monomer with 0 to 0.75 % by weight of a second acidic monomer selected from the group consisting of acrylic acid and methacrylic acid, provided that a total amount of said first acidic monomer and said second acidic monomer is from 0.5 to 1.5% by weight, based on a total weight of said copolymer P; and a weight ratio of said second acidic monomer to said first acidic monomer does not exceed 1:1; and
 - d) 0.2 to 5% by weight of at least one monomer M3 having at least one urea group; wherein a sum of the amounts of monomers M1, M2a, M2b and M3 is 100% by weight.

15. (Twice Amended) The emulsion paint according to Claim 9, with a pigment volume concentration (pvc) $> 10\%$.

C2
DI

16. (Twice Amended) A method of improving the wet abrasion resistance of a polymer-bound coating composition, comprising:

mixing a copolymer as a binder with said coating composition;

wherein said copolymer consists of the following units in polymerized form

- a) 20 to 80 % by weight of at least one monomer M2a, whose homopolymer has a

glass transition temperature of $>30^{\circ}\text{C}$;

b) 20 to 79.7 % by weight of at least one monomer M2b, whose homopolymer has a glass transition temperature of $<20^{\circ}\text{C}$;

c) 0.5 to 1.5 % by weight of c1) a first acidic monomer M1 selected from the group consisting of itaconic acid, a salt of itaconic acid, an anhydride of itaconic acid, and mixtures thereof, or c2) mixtures of said first acidic monomer with 0 to 0.75 % by weight of a second acidic monomer selected from the group consisting of acrylic acid and methacrylic acid, provided that a total amount of said first acidic monomer and said second acidic monomer is from 0.5 to 1.5% by weight, based on a total weight of said copolymer P; and a weight ratio of said second acidic monomer to said first acidic monomer does not exceed 1:1; and

d) 0.2 to 5% by weight of at least one monomer M3 having at least one urea group; wherein a sum of the amounts of monomers M1, M2a, M2b and M3 is 100% by weight.

18. (Amended) The emulsion paint as claimed in Claim 9, wherein said second acidic monomer is present; and

wherein a total amount of said first acidic monomer and said second acidic monomer is from 0.5 to 1.0 % by weight based on a total weight of said copolymer P; and

provided that a weight ratio of said monoethylenically unsaturated carboxylic acid to said acidic monomer does not exceed 1:1.

22. (Amended) The emulsion paint according to Claim 9, with a pigment volume concentration (pvc) $> 40\%$.

23. (Amended) The emulsion paint according to Claim 9, with a pigment volume concentration (pvc) $> 60\%$.

25. (Amended) The emulsion paint according to Claim 9, wherein a weight ratio of said second acidic monomer to said first acidic monomer does not exceed 1:2.

26. (Amended) The emulsion paint according to Claim 9, wherein a weight ratio of said second acidic monomer to said first acidic monomer does not exceed 1:3.

27. (Amended) The emulsion paint according to Claim 9, wherein a weight ratio of said second acidic monomer to said first acidic monomer does not exceed 1:9.

32. (Amended) An emulsion paint, comprising:

i) a polymeric binder, which comprises at least one copolymer P of ethylenically unsaturated monomers M in the form of an aqueous polymer dispersion;

ii) at least one inorganic pigment;

iii) an inorganic filler/extender; and

iv) an auxiliary;

wherein said copolymer P has a glass transition temperature T_g in the range of from -10 to +50°C; and

wherein said copolymer P consists of the following units in copolymerized form

i) 20 to 80 % by weight of at least one monomer M2a, whose homopolymer has a glass transition temperature of >30°C;

ii) 20 to 79.7 % by weight of at least one monomer M2b, whose homopolymer has a glass transition temperature of <20°C;

iii) 0.5 to 1.0 % by weight of itaconic acid as monomer M1; and

iv) 0.2 to 5% by weight of at least one monomer M3 having at least one urea group;

wherein a sum of the amounts of monomers M1, M2a, M2b and M3 is 100% by weight;

wherein said copolymer P contains no polymerized acrolein.

34. (Amended) A method of improving a wet abrasion resistance of a polymer bound emulsion paint, comprising:

mixing an aqueous dispersion of a copolymer P as a binder into a latex paint which additionally comprises at least one inorganic pigment, an inorganic filler/extender and an auxilliary;

wherein said copolymer P comprises in polymerized form

a) as monomer M 1:

C1
0.5 to 1.0% by weight of an acidic monomer selected from the group consisting of itaconic acid, a salt of itaconic acid an anhydride of itaconic acid and a combination thereof, and

D1
0 to 0.5% by weight of a second monomer selected from the group consisting of acrylic acid and methacrylic acid based on a total weight of said copolymer P;

provided that a total amount of said acidic monomer and said second monomer is from 0.5 to 1.0% by weight, based on the total weight of said copolymer P, and the weight ratio of said second monomer to said acidic monomer does not exceed 1:1;

b) 90 to 99.9 % by weight of monomers M2 selected from the group consisting of vinylaromatic monomers, esters of ethylenically unsaturated C₃-C₈ monocarboxylic acids with C₁-C₁₂-alkanols, and vinyl esters of aliphatic C₁-C₁₂ monocarboxylic acids, based on a total amount of said copolymer P; and

c) 0.1 to 10 % by weight of at least one monomer M3 which comprises an urea group, based on the total weight of copolymer P; and

wherein said aqueous polymer dispersion contains no polymerized acrolein;

- ii) at least one inorganic pigment,
iii) an inorganic filler or an inorganic extender; and
iv) an auxiliary.

42. (Amended) An emulsion paint, comprising:

i) a polymeric binder, which comprises at least one copolymer P of ethylenically unsaturated monomers M in the form of an aqueous polymer dispersion;

wherein said copolymer P has a glass transition temperature T_g in the range of from -10 to +50°C; and

wherein said copolymer P comprises in polymerized form

a) as monomer M 1:

0.5 to 1.0% by weight of an acidic monomer selected from the group consisting of itaconic acid, a salt of itaconic acid an anhydride of itaconic acid and a combination thereof, and

0 to 0.5% by weight of a second monomer selected from the group consisting of acrylic acid and methacrylic acid based on a total weight of said copolymer P;

provided that a total amount of said acidic monomer and said second monomer is from 0.5 to 1.0% by weight, based on the total weight of said copolymer P, and the weight ratio of said second monomer to said acidic monomer does not exceed 1:1;

b) 90 to 99.9 % by weight of monomers M2 selected from the group consisting of vinylaromatic monomers, esters of ethylenically unsaturated C_3 - C_8 monocarboxylic acids with C_1 - C_{12} -alkanols, and vinyl esters of aliphatic C_1 - C_{12} monocarboxylic acids, based on a total amount of said copolymer P; and

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CA
Cand

c) 0.1 to 10 % by weight of at least one monomer M3 which comprises an urea group,
based on the total weight of copolymer P; and
wherein said aqueous polymer dispersion contains no polymerized acrolein;
ii) at least one inorganic pigment,
iii) an inorganic filler or an inorganic extender; and
iv) an auxiliary.

Please add the following new Claims:

CA
DI

43. (New) The emulsion paint according to Claim 9, wherein said unit c1) is present.
44. (New) The emulsion paint according to Claim 9, wherein said unit c2) is present.
45. (New) The emulsion paint according to Claim 28, wherein said monomer M4 is
present.

BASIS FOR THE AMENDMENT

In Claims 9 and 32 the polymer has been limited to "consist of" the respective polymerized monomer units. The amendment of Claims 9 and 16 are further supported by Claim 12 as originally filed and at pages 2- 4 and at page 7, line 11. The remaining Claims have been amended to recite proper claim language. The amendment of Claims 34 and 42 is supported at page 4, line 40.

New Claims 43-45 have been added as supported by Claims 9 and 28 as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 9-11, 13 and 15-45 will now be active in this application.

INTERVIEW SUMMARY

Applicants wish to thank Examiner Egwim for his helpful and courteous discussion with Applicants' Representative on March 5, 2003. The rejections over the prior art of record were discussed.

REQUEST FOR RECONSIDERATION

At the outset Applicants wish to note that **Claim 45** contains allowable subject matter because it requires the presence of a siloxane monomer. In addition, **Claims 22, 23, 37 and 38** contain allowable subject matter. The only reference that discloses a pvc of >40% is Baumstark et al. However this reference does not disclose the urea group containing monomers (Baumstark et al., col. 7, lines 41-43). Further, Dèsor et al discloses a pigment volume concentration of < 40% (Dèsor et al., col. 5, lines 13-16) and discloses a pvc of 18% in Example 4 (Dèsor et al., col. 6, line 49).

Applicants have amended **Claims 9 and 32** so that the polymer P is now limited to "consist of" the respective polymerized monomer units.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks. Please note that the arguments are organized starting from the lowest claim number and not in the sequence as in the Office Action.

The present invention as set forth in **amended Claim 9** relates to an emulsion paint, comprising:

- i) a polymeric binder, which comprises at least one copolymer P of ethylenically unsaturated monomers M in the form of an aqueous polymer dispersion;
- ii) at least one inorganic pigment;
- iii) an inorganic filler/extender; and

iv) an auxiliary;

wherein said copolymer P has a glass transition temperature T_g in the range of from -10 to +50°C; and

wherein said **copolymer P** consists of the following units in polymerized form

- a) 20 to 80 % by weight of at least one monomer M2a, whose homopolymer has a glass transition temperature of >30°C; *h m 2*
- b) 20 to 79.7 % by weight of at least one monomer M2b, whose homopolymer has a glass transition temperature of <20°C; *for 7*
- +* c) 0.5 to 1.5 % by weight of c1) a first acidic monomer M1 selected from the group consisting of itaconic acid, a salt of itaconic acid, an anhydride of itaconic acid, and mixtures thereof, or c2) mixtures of said first acidic monomer with 0 to 0.75 % by weight of a second acidic monomer selected from the group consisting of acrylic acid and methacrylic acid, provided that a total amount of said first acidic monomer and said second acidic monomer is from 0.5 to 1.5% by weight, based on a total weight of said copolymer P; and a weight ratio of said second acidic monomer to said first acidic monomer does not exceed 1:1; and
- d) 0.2 to 5% by weight of at least one monomer M3 having at least one urea group; wherein a sum of the amounts of monomers M1, M2a, M2b and M3 is 100% by weight.

Amended Claim 16 relates to a method of improving the wet abrasion resistance of a polymer-bound coating composition, comprising: mixing a copolymer as a binder with said coating composition. The copolymer has the limitations of the copolymer used in Claim 9.

Amended Claim 32 relates to an emulsion paint, comprising:

- i) a polymeric binder, which comprises at least one copolymer P of ethylenically

unsaturated monomers M in the form of an aqueous polymer dispersion;

- ii) at least one inorganic pigment;
- iii) an inorganic filler/extender; and
- iv) an auxiliary;

wherein said copolymer P has a glass transition temperature T_g in the range of from -10 to +50°C; and

wherein said **copolymer P consists of the following units in copolymerized form**

- i) 20 to 80 % by weight of at least one monomer M2a, whose homopolymer has a glass transition temperature of >30°C;
 - ii) 20 to 79.7 % by weight of at least one monomer M2b, whose homopolymer has a glass transition temperature of <20°C;
 - iii) 0.5 to 1.0 % by weight of itaconic acid as monomer M1; and
 - iv) 0.2 to 5% by weight of at least one monomer M3 having at least one urea group;
- wherein a sum of the amounts of monomers M1, M2a, M2b and M3 is 100% by weight;

wherein said copolymer P contains no polymerized acrolein.

Claim 34 relates to a method of improving a wet abrasion resistance of a polymer bound emulsion paint, comprising:

mixing an aqueous dispersion of a copolymer P as a binder into a latex paint which additionally comprises at least one inorganic pigment, an inorganic filler/extender and an auxiliary;

wherein said copolymer P comprises in polymerized form

- a) as monomer M 1:

0.5 to 1.0% by weight of an acidic monomer selected from the group

consisting of itaconic acid, a salt of itaconic acid an anhydride of itaconic acid and a combination thereof, and

0 to 0.5% by weight of a second monomer selected from the group consisting of acrylic acid and methacrylic acid based on a total weight of said copolymer P;

provided that a total amount of said acidic monomer and said second monomer is from 0.5 to 1.0% by weight, based on the total weight of said copolymer P, and the weight ratio of said second monomer to said acidic monomer does not exceed 1:1;

b) 90 to 99.9 % by weight of monomers M2 selected from the group consisting of vinylaromatic monomers, esters of ethylenically unsaturated C₃-C₈ monocarboxylic acids with C₁-C₁₂-alkanols, and vinyl esters of aliphatic C₁-C₁₂ monocarboxylic acids, based on a total amount of said copolymer P; and

c) 0.1 to 10 % by weight of at least one monomer M3 which comprises an urea group, based on the total weight of copolymer P; and

wherein said aqueous polymer dispersion contains no polymerized acrolein;

ii) at least one inorganic pigment,

iii) an inorganic filler or an inorganic extender; and

iv) an auxiliary.

Claim 42 relates to an emulsion paint having the copolymer used in Claim 34.

The rejection of Claims 9-11, 13, 15-21, 24-29, 32-36, 39 and 42 under 35 U.S.C.

§102(b) as anticipated by Desor et al is respectfully traversed.

Dèsor et al fail to disclose or suggest the specific copolymer P that has been claimed.

The binders of Dèsor et al may contain in particular from 0.5 to 5% by weight of

monoolefinically unsaturated mono- and/or dicarboxylic acids and their amides or N-substituted amide (Dèsor et al, col. 2, lines 51 to 59). Dèsor et al neither recognizes the importance of itaconic acid nor the importance of a specific amount of itaconic acid. As can be seen from the examples, conventional binders such as Movilith DM611 or Movilith VDM7410 are used. Furthermore, in column 2, line 51-59 it is stated that the polymers preferably contain acidic monomers, their amides or their N-substituted amides without giving a preference to acidic monomers. In other words, Dèsor et al regards these monomers to be equivalent. However, this is not the case as can be seen from the working examples of the claimed invention. The working examples of Dèsor et al do not give any hint whether or not the polymers contain acidic monomers. There is no disclosure or suggestion of to use c1) which can be itaconic acid, in the claimed amount of 0.5 to 1.5 wt% or c2) which includes a mixture of c1) and acrylic or methacrylic acid to improve wet abrasion resistance.

Small
Sryp

The Examples of the present invention demonstrate that both, the selection of itaconic acid and the amount of itaconic acid result in superior properties (wet abrasion resistance) of the emulsion paints. For example, in Table 3 at page 31 of the present invention, comparative **Example C1 uses methacrylic acid** and achieves a low wet abrasion resistance of only 1200, while Examples 1 and 2 use 1 wt% of itaconic acid and achieve a high wet abrasion resistance of 2000 and 1700, respectively. Furthermore, even if itaconic acid is used, but the amount is outside the claimed range, such as in comparative Examples C2 and C3, a low wet abrasion resistance of only 1000 and 1325, respectively can be achieved.

In addition, a combination of itaconic acid and for example, acrylic acid is superior to acrylic acid alone because the combination has a high wet abrasion resistance of 2200 (Example 5, page 32, Table 4), while the acrylic acid containing composition has only a wet abrasion resistance of 1330 (Comparative Example C5, page 32, Table 4). This is not

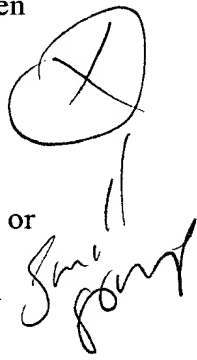
disclosed or suggested by the reference.

Therefore, the rejection of Claims 9-11, 13, 15-21, 24-29, 32-36, 39 and 42 under 35 U.S.C. §102(b) as anticipated by Desor et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

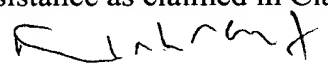
The rejection of Claims 9-11, 13, 16-21, 24-29, 32-35, 39 and 42 under 35 U.S.C. §102(b) as anticipated by Fölsch et al is respectfully traversed.

Fölsch et al fail to disclose or suggest the specific copolymer P that has been claimed. In particular this reference requires that the emulsion polymer of the disclosed aqueous binder has a cross-linking component containing at least two protected or unprotected aldehyde groups (Fölsch et al, col. 2, lines 30-33). However, at least Claims 9, 16 and 32 require that the polymer consists of the claimed polymerized units.

Further, the binders of Fölsch et al require preferably 0.1 to 5% by weight of ethylene-unsaturated radically polymerizable carboxylic acids (Fölsch et al, col. 4, line 49 ff.). Even though itaconic acid is mentioned, it appears in a long list of monomers and there is no motivation to use itaconic acid in the claimed amount to improve wet abrasion resistance. Fölsch et al does not recognize the importance of using a specific amount of itaconic acid or of using the itaconic acid itself. Instead, Fölsch et al uses methacrylic acid as can be seen from the only example in col. 6, line 27. Furthermore, the superior results of using the claimed amount of itaconic acid have been discussed above. See Example C1.



In particular, a method for improving wet abrasion resistance as claimed in Claims 16 and 34 is not disclosed or suggested by Fölsch et al.



Therefore, the rejection of Claims 9-11, 13, 16-21, 24-29, 32-35, 39 and 42 under 35 U.S.C. §102(b) as anticipated by Fölsch et al is believed to be unsustainable as the present

invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 9-11, 13, 15-42 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Knutson or Farwaha et al is respectfully traversed.

Knutson fails to disclose or suggest the claimed copolymer P used in the above Claims.

Knutson disclose an acrylic polymer emulsion prepared from a monomer feed containing at **least one** acrylate monomer (Knutson, col. 3, lines 8-11). Thus, all that is required is ONE acrylate monomer. The person of skill in the art then has to chose an appropriate monomer or possibly monomer combination from about two columns of possible monomers (Knutson, col. 3 and 4). Acidic monomers which includes itaconic acid are mentioned (Knutson, col. 4, lines 24-39), however, the claimed combination of polymerized units is not disclosed or suggested. Methacrylic acid is given as the most preferred acidic comonomer. Thus, Knutson believes that a polymer having methacrylic acid works better than a polymer having itaconic acid. That this is not the case has been discussed above. Clearly, the claimed amount of itaconic acid results in superior wet abrasion resistance which is not at all disclosed or suggested by this reference. There is no motivation to use itaconic acid or a combination of first and second acidic monomer in the claimed amount to improve wet abrasion resistance.

Farwaha et al disclose acrylic polymer latex comprising acetoacetate moieties (Farwaha et al, col. 2, lines 20-64). However, the present invention as set forth in Claims 9, 16 and 32 requires a specific copolymer that does not include such acetoacetate moieties.

In addition, a long list of carboxylic acid monomers which includes itaconic acid are

disclosed (Farwaha et al, col. 3, lines 23-28). Farwaha et al believes that all acidic monomers are equally effective. That this is not the case has been discussed above. Clearly, the claimed amount of itaconic acid results in superior wet abrasion resistance which is not at all disclosed or suggested by this reference. There is no motivation to use the first acidic monomer or its combination with the second acidic monomer in the claimed amount to improve wet abrasion resistance.

In particular, a method for improving wet abrasion resistance as claimed in Claims 16 and 34 is not disclosed or suggested by Knutson or Farwaha et al.

Therefore, the rejection of Claims 9-11, 13, 15-42 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Knutson or Farwaha et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 34, 35 and 42 under 35 U.S.C. §102(b) as anticipated by Plamondon et al is respectfully traversed.

Plamondon et al fail to disclose or suggest a method of improving a wet abrasion resistance of a polymer bound emulsion paint as claimed in **Claim 34**.

Claim 42 relates to an emulsion paint having the copolymer used in Claim 34.

Plamondon et al discloses a method for treating a textile material with an aqueous thermosetting acrylic latex. This latex requires at least 0.5% by weight of a graftlinking monomer or an active crosslinking monomer (Plamondon et al, col. 3, line 7). Both, the active crosslinking monomer and the graftlinking monomer contain at least to addition polymerizable vinylidene groups as can be seen from col. 4, line 13 and line 41 ff. However, there is no disclosure or suggestion of **0.1 to 10% by weight of at least one monomer M3 comprising an urea group** as claimed. Therefore, Plamondon et al does not anticipate the

claimed subject matter.

Therefore, the rejection of Claims 34, 35 and 42 under 35 U.S.C. §102(b) as anticipated by Plamondon et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 34-38 and 42 under 35 U.S.C. §102(e) as anticipated by Baumstark et al is respectfully traversed.

Baumstark et al (US 5,905,114) disclose binders having up to 1 % by weight of ethylenically unsaturated monomers which are able to form ionic groups (Baumstark et al, col. 3, line 50 ff.). A large number of ionic monomers are mentioned. However, there is no disclosure or suggestion of **0.1 to 10% by weight of at least one monomer M3 comprising an urea group** as claimed.

Therefore, the rejection of Claims 34-38 and 42 under 35 U.S.C. §102(e) as anticipated by Baumstark et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 40 and 41 under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Baumstark et al and Claims 30, 31, 40 and 41 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Desor et al is respectfully traversed.

Claims 40 and 41 depend on Claim 34 discussed above. Baumstark et al fail to disclose or suggest **0.1 to 10% by weight of at least one monomer M3 comprising an urea group** as claimed in **Claim 34**. Thus, Claims 40 and 41 are not anticipated by or obvious over Baumstark et al.

Claims 30 and 31 depend on Claim 9 discussed above. Dèsor et al fail to disclose or suggest the specific copolymer P that has been claimed. Thus, Claims 30, 31, 40 and 41 are

not anticipated by or obvious over Dèsor et al.

Therefore, the rejection of Claims 40 and 41 under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Baumstark et al and Claims 30, 31, 40 and 41 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Desor et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 36-38, 40 and 41 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Plamondon et al and Claims 15, 22, 23, 30, 31, 36-38, 40 and 41 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Fölsch et al is respectfully traversed.

Claims 36-38, 40 and 41 depend on Claim 34 discussed above. There is no disclosure or suggestion in Plamondon et al of **0.1 to 10% by weight of at least one monomer M3 comprising an urea group** as claimed in Claim 34. Thus, Claims 36-38, 40 and 41 are not disclosed or suggested by this reference.

Claims 15, 22, 23, 30, 31 depend on Claim 9. Claims 36-38, 40 and 41 depend on Claim 34. Fölsch et al fail to disclose or suggest the specific copolymer P that has been claimed. In particular this reference requires that the emulsion polymer of the disclosed aqueous binder has a cross-linking component containing at least two protected or unprotected aldehyde groups (Fölsch et al, col. 2, lines 30-33). However, at least Claim 9 (and therefore the claims depending therefrom) require that the polymer consists of the claimed polymerized units.

Further, the binders of Fölsch et al require preferably 0.1 to 5% by weight of ethylene-unsaturated radically polymerizable carboxylic acids (Fölsch et al, col. 4, line 49 ff.). Even

though itaconic acid is mentioned, it appears in a long list of monomers and there is no motivation to use itaconic acid in the claimed amount to improve wet abrasion resistance. Fölsch et al does not recognize the importance of using a specific amount of itaconic acid or of using the itaconic acid itself. Instead, Fölsch et al uses methacrylic acid as can be seen from the only example in col. 6, line 27. Furthermore, the superior results of using the claimed amount of itaconic acid have been discussed above. See Example C1.

In particular, a method for improving wet abrasion resistance as claimed in Claim 34 is not disclosed or suggested by Fölsch et al.

Therefore, the rejection of Claims 36-38, 40 and 41 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Plamondon et al and Claims 15, 22, 23, 30, 31, 36-38, 40 and 41 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Fölsch et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

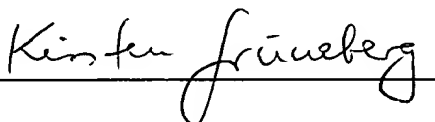
The rejection of Claims 16, 17 and 25-27 under 35 U.S.C. §112, 2nd paragraph, is obviated by the amendment of these Claims. Notably, Claim 16 has been rewritten in independent form.

The objection to Claims 9, 15, 22 and 23 is obviated by the amendment of these Claims.

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

A handwritten signature in dark ink, appearing to read "Norman F. Oblon", is written over a horizontal line.

Norman F. Oblon
Attorney of Record
Registration No.: 24,618



22850

Kirsten A. Grueneberg, Ph.D.
Registration No.: 47,297

PHONE NO.: (703) 413-3000
FAX NO.: (703) 413-2220
NFO:KAG:lcd

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